

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1-9. (cancelled)

10. (new) An apparatus (1) for sorting packages, comprising means (2) for supplying the packages to at least a station (3) for their manipulation and orientation, said manipulating station (3) comprising at least a manipulator head (7);

at least a belt conveyor (6) associated with the manipulating station (3),

the manipulator head (7) being movable by translation according to the axes of an orthogonal Cartesian triad and by rotating about a substantially vertical axis, for orienting the packages on an upper surface (6a) of the conveyor belt (6) contemporaneously to the movement of the packages caused by the advancing of said conveyor belt (6),

characterized in that said means (2) for supplying the packages comprise a pair of conveyor belts (4, 5) movable with variable and independent speeds in order to put the packages in step before their supply to the manipulating station (3).

11. (new) An apparatus as claimed in claim 10, characterized in that the manipulator head (7) comprises gripping means to displace the packages.

12. (new) An apparatus as claimed in claim 11, characterized in that the gripping means are grippers provided with gripping appendages (8a;8b), a first appendage (8a) being integral with

the structure of the manipulator head (7) and a second appendage (8b) being integral with a rod (9) which can slide inside a corresponding cylinder (10) obtained in the structure of the head (7).

13. (new) An apparatus as claimed in claim 10, characterized in that the means (2) for supplying the packages to the manipulating station (3) comprise a pair of conveyor belts (4;5).

14. (new) An apparatus as claimed in claim 13, characterized in that each conveyor belt is associated with:

at least an actuating motor;

at least a sensor for counting the RPM of the motor;

at least a photocell for detecting the presence of a package on a belt;

at least a processor.

15. (new) An apparatus as claimed in claim 10, characterized in that it further comprises a guide (7a) transverse relative to a direction of advance of the conveyor belt (6), said guide (7a) translating on rails (7b) according to a direction that is substantially parallel to the direction of advance of the conveyor belt (6), said manipulator head (7) being movable by sliding on said guide (7a).

16. (new) An apparatus as claimed in claim 10, characterized in that the upper surface (6a) of the conveyor belt (6) is flat and defines a single substantially horizontal plane.

17. (new) An apparatus as claimed in claim 10, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

18. (new) An apparatus as claimed in claim 11, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

19. (new) An apparatus as claimed in claim 12, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

20. (new) An apparatus as claimed in claim 13, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

21. (new) An apparatus as claimed in claim 14, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

22. (new) An apparatus as claimed in claim 15, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).

23. (new) An apparatus as claimed in claim 16, characterized in that said pair of conveyor belts (4, 5) are positioned externally to the manipulating station (3) and they unload the packages on the belt conveyor (6) associated with the manipulating station (3).